



## PCS – Precision Current Sense Resistors

The resistor family line, PCS, utilizes EBG's state of the art technology to provide a highly reliable resistor with a non inductive design.

This makes the PCS resistor ideal for many current monitoring and controls applications.

- · Available in two different designs
- Values beginning at  $0.5m\Omega$
- Non Inductive Design
- · Four terminal Kelvin connection
- 100% QC measurement





C = current connection (source) S = voltage connection (sense)

For the Dimensions please see our type HXP in this catalogue on page 26 !



## PCS - 3

- Standard Resistance Values:
- 1 m $\Omega$  60m $\Omega$  (60m $\Omega$  1 $\Omega$  on request) Resistance Tolerances: 1%, 2%, 5%
- · Pulse current up to 200A / 0.5sec,
- depending on ohmic value
- Temperature Coefficient: TC referenced to 25°C, ΔR taken at -15°C and +105°C, 60ppm/°C typically for values
- >  $27m\Omega$  (please ask for details) Power Rating: 3W at 70°C
  40Amp permanent (higher on request)
- · Load Life:
- 1,000 hours at rated power at +70°C, ∆R 0.2% max. · Thermal Shock:
- Mil-Std-202, Method 107, Cond. A, ∆R 0.2% max.
- Moisture Resistance: Mil-Std-202, Method 106, AR 0.2% max.
- · Terminal Material:
- Kelvin Terminals; tinned copper Encapsulation:
- Polyester over resistance element · Operating temperature: -55°C to
- +150°C
- Storage temperature: -40°C to +85°C
- PCS 100
- Standard Resistance Values:
- $0.5m\Omega-1\Omega$  (others on request) Resistance Tolerances: 1%, 2%, 5%
- Pulse current up to 500A / 0.5sec,
- depending on ohmic value Temperature Coefficient:
- TC referenced to 25°C,  $\Delta R$  taken at - $15^{\circ}$ C and  $+105^{\circ}$ C, < 60ppm/ $^{\circ}$ C (TC < 500ppm/ $^{\circ}$ C for resistance range from  $27m\Omega$  to  $49m\Omega$ )
- Power Rating: 100W (at 70°C case temperature) 50Amp permanent (higher on request) Dielectric strength: 1000VDC
- higher value on request
- Heat Resistance: Rth = < 0.56K/W Protectionclass
- acc. to IEC 950/CSA22.2 950/M 89 and EN 60950.88:2 · Working Temp. Range:
- -55°C to +155°C
- Max. Torque for Contacts: 1.3Nm 8 (static)
- Max Torque for Base Plate:1.5 Nm (static)

## C S S Q L C Dimensions: PCS - 3

C

PCS –	3		
Dim.	Millimeter		Inches
А	20.5	±1.20	(0.807±0.008)
В	5.35	±0.10	(0.211±0.004)
С	16.4	±0.20	(0.646±0.008)
D	8.00	±0.20	(0.315±0.008)
E	3.00	±0.20	(0.118±0.008)
F	3.00		(0.118)
G	2.00		(0.079)
Н	1.10		(0.043)
I	1.50		(0.059)
J	0.80		(0.031)
К	5,08		(0.2)
L	7.62		(0.3)

## PCS - 60

This resistor type is equal to the PCS-100 apart from following points:

- Power Rating: 60W (at 70°C case temperature) · Dielectric strength: up to 4000VDC or 2800VAC, higher values on
- request
- Temperature Coefficient: TC referenced to  $25^{\circ}$ C,  $\Delta$ R taken at -15°C and +105°C, < 60ppm/°C (TC < 500ppm/°C for resistance range from  $20m\Omega$  to  $49m\Omega$ )
- Operating temperature: -55°C to +150°C
- Storage temperature: -40°C to +85°C

In the above spec sheet, you will find our standard product, please contact your local manufacturing representative or call us direct to find out details of other options available regarding this style.





Ambient Temperature, °C